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# TESTIMONY ON THE CURRENT AND FUTURE WORLDWIDE THREATS TO THE NATIONAL SECURITY OF THE UNITED STATES

UNITED STATES SENATE, COMMITTEE ON ARMED SERVICES

ONE HUNDRED SIXTH CONGRESS, FIRST SESSION

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Honorable George J. Tenet [\[View PDF\]](#)  
Director, Central Intelligence Agency

Lieutenant General Patrick M. Hughes, USA [\[View PDF\]](#)  
Director, Defense Intelligence Agency

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**Statement of the Director of Central Intelligence**

**George J. Tenet**

**As Prepared for Delivery**

**Before the Senate Armed Services Committee**

**Hearing on**

**Current and Projected National Security Threats**

**February 2, 1999**

**INTRODUCTORY REMARKS**

Good morning, Mr. Chairman. In this last annual threat assessment of the 20th century, I must tell you that US citizens and interests are threatened in many arenas and across a wide spectrum of issues. What is noteworthy is the manner in which so many issues are now intertwined and so many dangers mutually reinforcing.

Why is this so? To some degree it involves historic legacies fueled by the continued crumbling of Cold War constraints. We see this in the ongoing turmoil of the Balkans, the increasing violence in Africa, and the renewed volatility of the Subcontinent. But in today's world, these problems fester amidst new dangers—dangers that flow from new factors, such as the increasing availability of sophisticated technology and the ease and speed with which it can be applied by those hostile to the United States. In a very real sense, we live at a moment when the past and the future are colliding. In other words, today we must still deal with terrorists, insurgents, and others who have hundreds of years of history fueling their causes—but chances are they will be using laptop computers, sophisticated encryption, and weaponry their predecessors could not even have imagined.

**Transnational Issues: WMD Proliferation**

No issue is more emblematic of these new challenges than the proliferation of weapons of mass destruction. As you know, 1998 saw the nuclear tests in South Asia, continued concerns about Iraq's WMD programs, accelerated missile development in Iran, North Korea, Pakistan and India, and broader availability of BW and CW relevant technologies. Particularly worrisome to the Intelligence Community is the security of Russian WMD materials, increased cooperation among rogue states, and more effective efforts by proliferants to conceal illicit activities. US intelligence is increasing its emphasis and resources on many of these issues, but I must tell you that there is a continued and growing risk of surprise.

Looking at the supply-side first: Russian and Chinese assistance to proliferant countries has merited particular attention for several years. This year, unfortunately, is no exception. I mentioned in my statement last year that Russia had just announced new controls on transfers of missile-related technology. There were some positive signs in Russia's performance early last year but, unfortunately, there has not been a sustained improvement. Especially during the last six months, expertise and materiel from Russia has continued to assist the Iranian missile effort in areas ranging from training, to testing, to components. This assistance is continuing as we speak, and there is no doubt that it will play a crucial role in Iran's ability to develop more sophisticated and longer range missiles.

Making matters worse, societal and economic stress in Russia seems likely to grow, raising even more concerns about the security of nuclear weapons and fissile material. Although we have not had recent reports of weapons usable nuclear material missing in Russia, what we have noticed are reports of strikes, lax discipline, and poor morale, and criminal activity at nuclear facilities. For me, Mr. Chairman, these are alarm bells that warrant our closest attention and concern.

The China story is a mixed picture, Mr. Chairman. China's senior leaders are actively studying membership in the Missile Technology Control Regime and have pledged to prevent the export of materials or technology that could assist missile and nuclear programs in South Asia. Beijing has promulgated controls on dual-use nuclear technology and tightened chemical export controls.

We cannot yet assure you, however, that the new export control mechanisms will be effective. Both the Chinese Government and Chinese firms have long-standing and deep relationships with proliferant countries, and we are not convinced that China's companies fully share the commitments undertaken by senior Chinese leaders. While all aspects of China's proliferation behavior bear continued watching, we see more signs of progress on nuclear matters than on missile assistance. Moreover, the restructuring of China's defense industrial bureaucracy—including entities charged with export oversight—holds the potential to create confusion and incentives that would impede the effectiveness of this system. In short, Mr. Chairman, our guard remains up on this question.

There is little positive I can say, Mr. Chairman, about North Korea, the third major global proliferator, whose incentive to engage in such behavior increases as its economy continues to decline. Missiles and WMD know-how are North Korean products for which there is a real market. North Korea's sales of such products over the years have dramatically heightened the WMD threat in countries of key concern, such as Iran and Pakistan. Meanwhile, countries, such as India, Pakistan, and Iran that traditionally have been seen as technology customers, have now developed capabilities that they could export to others.

Looking at the demand side, Mr. Chairman, let's focus first on nuclear programs. Last spring dramatically made clear that both India and Pakistan are well positioned to build significant nuclear arsenals. Meanwhile, Iran, too, seems to be pushing its program forward. With regard to North Korea, the Agreed Framework has frozen P'yongyang's ability to produce additional plutonium at Yongbyon, but we are deeply concerned that North Korea has a covert program. The key target for us to watch is the underground construction project at Kumchang-ni, which is

large enough to house a plutonium production facility and perhaps a reprocessing plant as well.

The missile story is no more encouraging. Indeed, we expect the high level of launch activity in 1998 to continue in 1999. Last year's activity included the first launches of the North Korean Taepo Dong 1, the Pakistani Ghauri and the Iranian Shahab-3, the latter two based on North Korea's No Dong. With a range of 1,300 km, the No Dong, Shahab-3, and Ghauri significantly alter the military equations in their respective regions; each is probably capable of delivering weapons of mass destruction.

In short, theater-range missiles with increasing range pose an immediate and growing threat to US interests, military forces, and allies—and the threat is increasing. This threat is here and now.

More disturbing, Mr. Chairman, is that foreign missiles of increased range and military potential are under development. North Korea's three-stage Taepo-Dong 1, launched last August, demonstrated technology that, with the resolution of some important technical issues, would give North Korea the ability to deliver a very small payload to intercontinental ranges—including parts of the United States—although not very accurately.

P'yongyang is also working on another missile—the Taepo Dong-2. With two stages, the Taepo Dong-2, which has not yet been flight-tested, would be able to deliver significantly larger payloads to mainland Alaska and the Hawaiian Islands and smaller payloads to other parts of the United States. In other words, the lighter the payload, the greater the range. With a third stage like the one demonstrated last August on the Taepo Dong-1, this missile would be able to deliver large payloads to the rest of the US. The proliferation implications of these missiles are obviously significant.

Foreign assistance is a fundamental factor behind the growth in the missile threat. For example, foreign assistance helped Iran save years in its development of the Shahab-3 missile, which is based on the North Korean No Dong and, as I noted earlier, includes Russian assistance. Moreover, Iran will continue to seek longer range missiles and to seek foreign assistance in their development.

If Iran follows a development time line similar to that demonstrated with the Shahab-3, which included significant foreign assistance, it would take Iran many years to develop a 9,000 to 10,000 km range ICBM capable of reaching the United States. But Iran could significantly shorten the acquisition time — and warning time — by purchasing key components or entire systems from potential sellers such as North Korea.

Iraqi capabilities to develop missiles also continues to be a concern. Iraq was ahead of Iran before the Gulf war, and if sanctions were lifted, we would have to assume that Iraq would seek longer-range capabilities.

Against the backdrop of an increasing missile threat, Mr. Chairman, the proliferation of chemical and biological weapons takes on more alarming dimensions. At least sixteen states, including those with the missile programs mentioned earlier, currently have active CW programs, and

perhaps a dozen are pursuing offensive BW programs. And a number of these programs are run by countries with a history of sponsoring terrorism.

### The Threat of Terrorism

On terrorism, Mr. Chairman, I must be frank in saying that Americans increasingly are the favored targets. US citizens and facilities suffered more than 35 percent of the total number of international terrorist attacks in 1998. This is up from 30 percent in 1997, and 25 percent in 1996.

Looking out over the next year, Mr. Chairman, let me mention two specific concerns. First, there is not the slightest doubt that Usama Bin Ladin, his worldwide allies, and his sympathizers are planning further attacks against us. Despite progress against his networks, Bin Ladin's organization has contacts virtually worldwide, including in the United States — and he has stated unequivocally, Mr. Chairman, that all Americans are targets.

Bin Ladin's overarching aim is to get the United States out of the Persian Gulf, but he will strike wherever in the world he thinks we are vulnerable. We are anticipating bombing attempts with conventional explosives, but his operatives are also capable of kidnappings and assassinations.

We have noted recent activity similar to what occurred prior to the African embassy bombings, Mr. Chairman, and I must tell you we are concerned that one or more of Bin Ladin's attacks could occur at any time.

One of my greatest concerns is the serious prospect that Bin Ladin or another terrorist might use chemical or biological weapons. Bin Ladin's organization is just one of about a dozen terrorist groups that have expressed an interest in or have sought chemical, biological, radiological, and nuclear (CBRN) agents. Bin Ladin, for example, has called the acquisition of these weapons a "religious duty" and noted that "how we use them is up to us." Earlier I referred to state sponsorship of terrorism, so let me take this opportunity to say, with respect to Iran, that we have yet to see any significant reduction in Iran's support for terrorism. President Khatami took office in August 1997, but hard-liners, such as Supreme leader Khamenei, continue to view terrorism as a legitimate tool of Iranian policy and they still control the institutions that can implement it.

### The Threat of International Narcotics and Organized Crime

Turning now to the problem of international narcotrafficking and organized crime—I must tell you that the threat remains significant, despite many successes, particularly in the fight against cocaine trafficking. The illicit narcotics trade adapts quickly to law enforcement pressures, new markets, and shifting supply patterns. Three developments particularly concern me.

First, there is good news and bad news on coca cultivation. In Peru—which historically has accounted for more than half of the Andean total—cultivation has declined by more than half over the past three years. Cultivation in Bolivia, historically the second largest coca producer, has also dropped substantially. The bad news, however, is that these declines are largely offset by significant increases in coca cultivation and production in Colombia—much of which is in

high-risk insurgent-controlled territory making Colombia's eradication efforts more problematic.

To President Pastrana's credit, he is trying to engage the insurgents in talks intended partly to seek their help in eradication efforts — the first time a Colombian President has taken such a bold and risky step.

Second, drug shipments are increasing overland through Central America to Mexico, and from there across the southwest border into the United States.

Finally, Mr. Chairman, opium production—the source of all refined heroin—has ballooned in Afghanistan. This country now accounts for almost 40 percent of potential worldwide opium production and may be approaching Burma as the top heroin exporter in the world.

Now, harder to track than drugs—but every bit as insidious—is international organized crime. In Russia, crime groups have permeated the financial sector, and bad bank loans, some made at the behest of criminal groups, have weakened individual banks and the Russian banking system.

Here's my principal concern, Mr. Chairman: the potential profitability of smuggling items related to weapons of mass destruction may lead to organized criminal involvement in brokering deals, financing transactions, or facilitating the transport of WMD materials to rogue states and terrorist groups.

#### The Threat of Information Warfare and the Year 2000 Problem

In another arena, Mr. Chairman, 1998 made clear to me that the increasing digital domination of our lives in the Information Age is creating a vulnerability of a different kind—the potential threat to our national security posed by information warfare.

Several countries have or are developing the capability to attack an adversary's computer systems. Developing a computer attack capability can be quite inexpensive and easily concealable: it requires little infrastructure, and the technology required is dual-use.

For our part, providing timely warning of an attack against US computer systems is a tough technical challenge. It will require close coordination with law enforcement and the private sector to succeed, and that is what we are working hard to achieve.

And as we close the 20th century, Mr. Chairman, there is one more computer-based threat on my mind—the inability of some foreign countries to deal adequately with the Year 2000 problem.

In our judgment, foreign countries trail the United States in addressing the Y2K problems by at least several months, and in many cases by much longer. The lowest level of Y2K preparedness is evident in Eastern Europe, Russia, Latin America, the Middle East, Africa, and several Asian countries, including China. Y2K remediation is underfunded in most countries.

These uneven efforts account for several potential threats to our interests. Global linkages in

telecom-munications, financial systems, air transportation, the manufacturing supply chain, oil supplies, and trade mean that Y2K problems will not be isolated to individual countries, and no country will be immune from failures in these sectors. There is potential for civil unrest in some countries, particularly if critical service sectors are disrupted for extended periods. Energy flows could be interrupted in some countries. Europe, for example, gets more than one-third of its natural gas from Russia and could be affected if Gazprom has Y2K problems. Some military activities, including those of our allies, depend on the secure and uninterrupted flow of digital information, making overall readiness a potential casualty of Y2K.

## CHALLENGE: RUSSIA AND CHINA

Daunting as these challenges are, Mr. Chairman, we cannot, in focusing on them, overlook some more traditional concerns in two nations of critical importance to the United States: Russia and China.

### Russia

Let me start with Russia. Last year I reported to you my view that Russia's future direction—whether it develops as a stable democracy, reverts to the autocratic and expansionist impulses of its past, or degenerates into instability—remained an open question. My concerns about Russia's direction are greater today than they were a year ago—largely because Russia's deteriorating economy elevates the "uncertainty quotient" in a number of key areas.

Just one year ago, Russia had its problems, but it had a basic sense of direction and seemed to be moving forward, however fitfully. Now, however, Prime Minister Primakov is struggling with mammoth problems. To his credit, he has built a good relationship with the legislature and gained passage of some long overdue legislation. But the nation is heading into a political transition, facing difficult economic choices, and possibly entering a period in which it debates its future political direction. This is playing out against continuing instances of lawlessness and growing public sentiment for a stronger hand at the helm. This could be a dangerous path for a country with Russia's authoritarian history, even though Russia has now held successful elections and adopted a constitution.

The sense of drift is accentuated by the focus most political leaders already have on the December 1999 Duma elections and the June 2000 Presidential election. Very few are disposed to take bold steps or new initiatives that might risk additional public "pain" right now.

Meanwhile, President Yeltsin's health problems limit his involvement in decisionmaking and place on Prime Minister Primakov much of the responsibility for the day-to-day management of the country.

As the government ponders how to proceed, the economic indicators grow more worrisome. Russian consumers have been hit hard by inflation—prices have shot up 90 percent since late July—imports of consumer goods have now fallen sharply, unemployment has inched up to nearly 12 percent and is spreading to the emerging middle class, and the economy will probably contract

by 6 to 8 percent this year.

This changed political dynamic and the economic slide highlights the foundation of my increased concern: Politically, Russia is increasingly unpredictable, and the worsening economic situation affects all aspects of the Russian scene, as the desperate search for revenue streams is exacerbating a number of serious problems:

For example, it has magnified the proliferation threat across the board, as growing financial pressures raise incentives to transfer sensitive technologies—especially to Iran.

It has also highlighted the patchwork, inconsistent nature of Moscow's relations with Russia's 89 regions—particularly in the delineation of fiscal powers and responsibilities. Alarm bells rang in Moscow as dozens of regions initially responded to the economic crisis by imposing price controls and limiting the flow of foodstuffs and other goods outside their regions. China Turning now to China, my concerns bear some resemblance to those about Russia, but in China's case, the trajectory is clearly different. China is a great power on the rise — diplomatically, militarily, and economically. There is no doubt that China has the potential to affect our security posture in Asia, but the extent to which its ambitions and growing capabilities represent a challenge or threat to US interests is still an open question.

The Chinese have signaled in summit meetings and elsewhere that they want constructive bilateral relations. But at the same time, they remain fundamentally suspicious of US intentions toward China, and— like Russia—seek to constrain any increase in US global influence.

Meanwhile, China's military modernization program continues apace, despite slowing economic growth. The Chinese program is assisted by sustained levels of defense spending and the availability of weapons and technologies from the former Soviet bloc. Its focus is on air, naval, and strategic nuclear modernization.

China is increasing the size and survivability of its retaliatory nuclear missile force, even though it is unlikely to make the resource commitment needed to approach the force levels of either the United States or Russia.

China is also developing and acquiring air and naval systems intended to deter the United States from involvement in a Taiwan Strait crisis and to extend China's fighting capability beyond its coastline.

Although China does not want a conflict over Taiwan, it refuses to renounce the use of force as an option and continues to place its best new military equipment opposite the island.

China's future is also uncertain because of its pressing domestic challenges. On the economic side, China's major concern this year will be sustaining economic growth, which officially reached almost 8 percent last year. China has not been immune from the global financial crisis, and much slower growth this year would threaten labor peace and increase pressure to devalue the currency—a step that would fuel a new round of financial turmoil in Asia.

These economic uncertainties have heightened China's fear of civil strife, and the recent arrests of several pro- democracy dissidents leave no doubt that China's leaders are determined to sustain the Communist Party's monopoly on political power.

#### CHALLENGE: REGIONAL TROUBLEMAKERS

Mr. Chairman, I'd like now to draw your attention to a group of hostile countries that remain determined to challenge our interests at every turn. The Threat from Iraq Needless to say, Iraq is high on this list. For eight years, Saddam has been scarred by military defeat, diplomatic setbacks, and UN sanctions. But he remains in power, and therefore, remains a threat.

A fresh reminder of the threat has been Baghdad's return to anti-Kuwait themes not heard since 1994. Tariq Aziz in January, for example, called the Kuwaiti border issue "a mine that may explode in the future."

In early January Saddam called on the Arab people to overthrow governments that support US policy. Such threats to Kuwait and moderate Arab regimes are signs of Saddam's frustration with containment. Such threats also are classic examples of Saddam's heavy-handed approach to the world—one that exasperates Arab regimes.

While noting their sympathy for the Iraqi people, Arab regimes have reiterated that Saddam is responsible for the consequences of his defiance.

The Arab League Ministerial meeting in January and the November Damascus Declaration—from GCC states plus Syria and Egypt—showed that Saddam's defiance and bluster are backfiring.

We fully expect that he will continue his confrontational approach this year. It stems from Saddam's frustration that Allied airstrikes have not triggered a decisive backlash against UN sanctions from Security Council members and Arab governments.

His challenge to the no-fly zones, for example, is an effort to deepen divisions within the Security Council and to inspire greater opposition to American and British policy. With his diplomacy and his challenges to the No-Fly zone failing to deliver the breakthrough he seeks, Saddam will try other tactics to end sanctions.

Over the years, I have talked about the capabilities of his military and his hidden weapons of mass destruction, as well as Saddam's ability to launch terrorism

Many of these capabilities remain available to him as he grows more frustrated and desperate to break out of containment.

They remind us how dangerous Saddam is and why only his fall from power will free the region from this abiding threat.

In this context, one important result of Operation Desert Fox was to damage the missile infrastructure that would support future Iraqi WMD development.

But more importantly from my perspective, Baghdad learned from Desert Fox that Washington's will to address the Iraqi threat has not faded and that we know how to reach the things Saddam cares about most—the instruments of his power.

How secure is Saddam's rule, Mr. Chairman? There is good news and bad news on that score. Over the last eight years UN sanctions, and other pressures have complicated Saddam's efforts to maintain firm control over the country. Economic difficulties and the Shia insurgency in southern Iraq have helped undermine morale in the regular Army, and perhaps in the Republican Guard. And as you have heard, Operation Desert Fox at least briefly had some disruptive impact on the Republican Guard and Security Services.

Balancing such pressures on Saddam's regime, however, is a still-formidable security apparatus. The overlapping security services are pervasive and ruthless, leaving few vulnerabilities that can be exploited by those opposed to his rule. The security services are not infallible and Saddam has made many enemies inside Iraq, but his regime is not, as some have claimed, a house of cards.

#### The Threat from North Korea

Dangerous as Saddam is, Mr. Chairman, I can hardly overstate my concern about North Korea. In nearly all respects, the situation there has become more volatile and unpredictable. The regime is still struggling with serious food shortages, last year's grain harvest having been more than 1 million tons short of minimum grain needs. Very few heavy industrial plants are in operation. Living conditions for most North Koreans are miserable. Incredibly, this misery coexists with the robust WMD program I mentioned a few minutes ago.

Fresh signs of social decay have increased our concern about stability in North Korea. Crime and indiscipline are commonplace even in the military and security services. Citizens from all walks of life, including members of elite groups, are more apt to blame Kim Chong-il for systemic problems, including poor living conditions.

All of this will encourage the North to rely still more heavily on risky brinkmanship in its dealings with the United States. P'yongyang has a history of precipitating crises that it thought it could control to increase US engagement in bilateral relations.

A key area where this will play out in the coming year is US efforts to inspect the underground construction project at Kumchang-ni, which may be intended to house a nuclear facility.

The key point, Mr. Chairman, is that North Korea remains a serious military threat, despite dire economic conditions. In addition to the WMD capabilities I mentioned earlier, P'yongyang continues to devote considerable resources to its mainline military, which can still initiate a full-scale war on the Peninsula and inflict massive damage on South Korea and the 37,000 American troops deployed there. We see no indication that Kim Chong-il has abandoned the goal

of ultimately bringing the entire Peninsula under his control.

## The Threat from Iran

Turning now to Iran: Mr. Chairman, last year I described Iran as a still dangerous state in which some positive changes were taking place—changes that could—and I stressed could—lead to a less confrontational stance toward the United States.

But Iran has had a tumultuous year, and my sense is that it is more likely to face serious unrest in 1999 than at any time since the revolution 20 years ago. The situation is very fluid, and the more moderate elements represented by Iran's President Khatami are on the defensive to a greater degree than ever before in their struggle with the country's conservatives. Some of President Khatami's domestic reforms have come under intense attack by conservatives. And the current jump in political violence, including the recent murders of several dissidents, suggests that some conservative elements have decided to revert to force to impose their will.

Khatami now has an opportunity to use the investigation of these murders, in which hardline elements appear implicated, to put his opponents on the defensive. He needs to regain the momentum he demonstrated in his first few months to make concrete gains against the conservatives. He could do so by using the investigation to push for change in the MOIS and, combined with large turnout in nationwide elections later this month, could reaffirm his popular mandate to push for reform.

But his efforts to do this will play out against a background of severe economic stress in Iran, largely the result of the slump in global oil prices. This is making it harder for Khatami to deliver on his reform promises—with high unemployment also contributing to the potential for civil unrest in the country.

Several troublesome developments involving Iran could unfold this year. First, Mr. Chairman, we need to bear soberly in mind that reformists and conservatives agree on at least one thing: weapons of mass destruction are a necessary component of defense and a high priority. Thus, as I stated earlier, we need to be vigilant against the possibility of proliferation surprise.

## India and Pakistan

Moving further East, Mr. Chairman, I must tell you that India and Pakistan continue to have fragile governments committed to potentially destabilizing nuclear and missile programs.

In India, the Hindu-nationalist led coalition is struggling with internal strains, a resurgence of extremism, and rising expectations that contrast sharply with a slowing economy and weak policies.

In Pakistan, the Sharif government is hampered by enormous economic problems and is contending with rising Islamic sentiment that includes an extremist fringe inspired by the Taliban example in Afghanistan.

Meanwhile, both India and Pakistan continue to resist curbing WMD programs to escape economic sanctions. Neither side has established a clear nuclear-use doctrine, which makes deterrence unstable. And the bilateral dialogue between the two rivals does not appear promising. Further nuclear tests are a distinct possibility and testing of advanced new missiles seems a certainty. Kashmir remains a dangerous flashpoint. While neither side appears to want war, and our diplomats are working hard to ease tensions, the two sides could easily stumble into conflict by misinterpreting intentions or military posture.

## The Balkans

Similarly, I must report a guarded outlook for the Balkans in 1999. Kosovo remains a tinderbox, and a constitutional struggle between Serbia and Montenegro could lead to a violent confrontation. In Bosnia, the Dayton process has brought stability and ended violence, but sharpening ethnic divisions may mean harder going for Dayton this year. Throughout the region political, economic, and social progress is unsustainable without direct international involvement in virtually every aspect of policy formation and resource allocation.

Kosovo is the most acute problem. The Kosovo Liberation Army will emerge from the winter better trained, better equipped, and better led than last year. With neither Belgrade nor the Kosovar Albanians willing to compromise at this point, spring will bring harder fighting and heavier casualties, unless the International Community succeeds in imposing a political settlement. The fragility of any political solution is likely to generate pressure for the International Community to deploy ground forces to enforce implementation and deter new fighting.

Kosovo—a province of Serbia—has long been a flashpoint between the Serbian and Albanian communities in what is now the Federal Republic of Yugoslavia. For Serbs, Kosovo is the birthplace of the Serbian nation and the location of many of the country's most famous and revered religious and historical sites. The source of tension is that over time Serb migration from the economically depressed province combined with a high birth rate among the ethnic Albanian community has resulted in the Serbs becoming a minority — they now account for less than 10 percent of the population of about 2 million.

Despite these demographic pressures, tensions between the two communities were contained through the seventies and eighties. During this period, Kosovo's Albanian majority enjoyed substantial autonomy and had representation in the main Federal Yugoslav bodies. Kosovo also had its own constitution, provincial assembly, interior ministry and wide administrative authority. This all changed in 1989 when Slobodan Milosevic — looking for an emotional and patriotic issue to rally public support behind his bid for power — posed as the defender of Serb interests in Kosovo. He abrogated Kosovo's autonomy on the wildly exaggerated grounds that the shrinking Serb population was being discriminated against by the Albanian majority.

In place of autonomy, Milosevic imposed his version of apartheid — shutting down ethnic Albanian schools and local administrative bodies and forcing ethnic Albanians out of government jobs and state-run businesses. Ethnic Albanian leaders initially responded to this repression by organizing non-violent resistance and seeking to reach a compromise with Belgrade. These

efforts, however, only resulted in more repression.

By 1996, a loosely organized insurgency — the Kosovo Liberation Army or KLA — had emerged — dedicated to overthrowing Belgrade's rule by force. The KLA grew quickly and was able last spring to mount low-level attacks against Serb police forces and expand its presence throughout the province, even exercising effective control over some areas in central Kosovo.

Alarmed by the growing threat posed by the KLA, Belgrade launched a major counter-insurgency operation that lasted until late October. Serb security forces succeeded in pushing the KLA out of many areas, but they were unable to inflict a mortal wound. The KLA suffered relatively light casualties and its command structure remained largely intact. The Albanian civilian population was not so fortunate, bearing the brunt of the Serbs scorched earth campaign.

The agreements Belgrade signed last October stemmed the fighting only temporarily. The KLA used the cease-fire and the presence of international verifiers to reoccupy all the territory it lost last year, and it has kept up a continuous series of small-scale attacks against Serb security forces. Belgrade, for its part, has failed to comply with many of the provisions of the October agreements, including those pertaining to troop withdrawals — maintaining considerably more police in Kosovo than permitted under the agreements reached with NATO. The large presence of so-called special police — the most brutal of the Serb forces in Kosovo — has served as a lightning rod for KLA attacks.

Mr. Chairman, we are on the verge of a dramatic deterioration of the Kosovo crisis as the limitations of winter weather pass. The cease-fire negotiated last October is near collapse. The number of attacks by both sides is increasing as are the casualties.

Both sides are now preparing for much heavier fighting in the spring. The KLA has used the cease-fire to improve its training and command and control, as well as to acquire more and better weapons. As a result the KLA is a more formidable force than the Serbs faced last summer. We estimate that there are several thousand KLA regulars augmented by thousands more irregulars, or home guards. Moreover, funds pouring into KLA coffers from the Albanian Diaspora have increased sharply following the massacre at Racak.

We assess that if fighting escalates in the spring — as we expect — it will be bloodier than last year's. Belgrade will seek to crush the KLA once and for all, while the insurgents will have the capability to inflict heavier casualties on Serb forces. Both sides likely will step up attacks on civilians. There is already evidence that the KLA may be retaliating for the slaying of Albanian civilians at the hands of Serb security forces by attacking Serb civilians. The recent attacks against Serb bars and restaurants in Pristina and Pec could be the beginning of a pattern of tit-for-tat retaliation that will grow more severe as fighting intensifies. Heavier fighting also will result in another humanitarian crisis, possibly greater in scale than last year's, which created 250,000 refugees and internally displaced persons along with hundreds of destroyed buildings and homes.

The Aegean, Haiti, and Africa

The outlook is better in the Aegean, Mr. Chairman, where tensions remain but the chances of an immediate armed confrontation between Greece and Turkey have receded, now that Cypriot President Clerides has agreed to divert Russian SA-10 missiles to Crete.

In Haiti, progress toward strengthening democratic rule suffered a series of setbacks last year and we could see an up-tick in unrest, violence, and crime as Haitians struggle to meet basic needs.

And Africa continues to present huge challenges as it struggles to build stronger political and economic institutions, but erupts increasingly into violence.

## CONCLUDING REMARKS

So, Mr. Chairman, the world seen from my window is far from placid. It is becoming a vastly more challenging place for those of us whose job it is to warn our nation's leaders and to protect American lives.

The questions are growing in number, the problems are more complex, and the issues are increasingly tangled together in intricate patterns. Many of our targets are paying closer attention to information security, and many are adding emphasis and resources to deny and deceive our intelligence gathering capabilities. Moreover, media leaks give our adversaries a roadmap to find and defeat our sources and methods.

With all of this in mind, we are working hard to improve our operational reach and analytic depth; to reinvigorate our ability to get the best human and technical intelligence possible; to ensure that our analytic corps has the sophistication to grapple with the growing intricacy of the threats;

As we do this Mr. Chairman, rest assured that we will give you the good news and the bad news with equal dedication. Our overarching aim is to ensure that our nation has the intelligence it needs to anticipate and counter the threats I've discussed here this morning.

Now, I will be glad to take your questions.

# **Global Threats and Challenges: The Decades Ahead**

## **Statement for the Record**

**Lieutenant General Patrick M. Hughes, USA  
Director, Defense Intelligence Agency**

*“Causing fear, both to prevent and to win wars, is the purpose of our Defense Department. Weapons, organization, thoughtful strategy, and effective tactics will help us; but the courage of the American citizen makes the rest possible ... But I do keep meeting fine and intelligent people who believe modern weapons have abrogated the need for courage.” Arthur T. Hadley*

Mr. Chairman, I am pleased to once again have the opportunity to provide the Committee my views on the global threats and challenges confronting our nation over the next two decades. As we have witnessed during the past year – with the continuing proliferation of weapons of mass destruction highlighted by the nuclear detonations in India and Pakistan ... heightened tensions along the line of control in Kashmir ... disorder in Indonesia ... terrorist bombings of our embassies in Kenya and Tanzania ... North Korean and Iranian progress in developing longer-range missiles ... intense ethnic conflict, particularly in the Balkans and Central Africa ... internal uncertainty and economic crisis in Russia ... the devastating impact of Hurricane Mitch in Central America ... narcotics trafficking and its corrosive effects on governance in Colombia and surrounding countries ... Iraq’s continued belligerence ... and growing concern with the direction North Korea is taking – the international security environment remains volatile, complex, and difficult.

I expect this general global turmoil to continue (and perhaps worsen) at least through the next decade, because the underlying causes – political, economic, social, and technological – remain largely in place. We should therefore anticipate an environment in which threats, challenges, and opportunities coexist, intertwine, and evolve seemingly at random. I am particularly concerned that the simultaneous occurrence of many ‘lesser’ crises will result in a ‘net effect’ that could diffuse our focus, dissipate our power and resources, cause us to be reactive, and ultimately, undermine our ability to shape the future.

Against this backdrop of change, turmoil, and uncertainty, I see five central themes that will define the nature of the military threats and challenges we are likely to encounter over the next two decades. These themes expand upon points I have raised in prior testimony as the Director, Defense Intelligence Agency, and reflect more than ten years of my thinking about the future global security environment.

- **No global military challenger** on the scale of the former Soviet Union is likely to emerge, but the US will continue to be confronted with a host of ‘lesser’ dangers – regional, transnational, and asymmetric. ***Terrorism will continue to be an important threat, particularly when terrorist acts include the use of weapons of mass destruction.*** Collectively, these lesser dangers represent a formidable barrier to the emergence of a stable, secure, and prosperous international order and will continue to absorb a great deal of the US military’s time, energy, and resources.
- **The strategic nuclear threat to the US will endure,** but its character has and will continue to change significantly. While the number of Russian strategic warheads will shrink dramatically, Moscow will retain a potent delivery capability and rely increasingly on strategic forces. China will modernize and expand its relatively small and dated strategic deterrent force. Though less certain, I am increasingly concerned that adversaries – notably North Korea and Iran – will develop and field nuclear-armed missiles with intercontinental range. This more diverse and complex strategic nuclear threat environment affects Cold War thinking about nuclear deterrence, policy, force posture, and strategic targeting.
- **The threat posed by regional weapons of mass destruction (WMD) -- already the greatest threat to deployed US forces -- will increase.** Several rogue states will likely join the nuclear club, chemical and biological weapons will be widely proliferated, and the numbers of longer-range theater ballistic and cruise missiles will increase significantly, particularly in the Middle East. This dynamic has the potential to fundamentally alter theater force balances, the nature of regional war and conflict, and US contingency planning and execution.
- **Large regional forces remain a substantial concern.** A number of key regional powers – China and possibly Russia at the high end, but also an unimpeded Iraq, Iran, India, Pakistan, and, at least through the near term, North Korea – will field conventional military forces that are large and well-equipped by today’s standards. The degree to which these ‘industrial age’ forces can adopt and apply selected ‘high-end capabilities’ – WMD, missiles, satellite reconnaissance, global positioning, precision-strike, advanced radar, and so forth – remains to be seen. In the right regional context, they could pose a significant threat to US mission success, particularly in the period beyond 2010.

- ***The emergence of a new threat paradigm, and changes in the nature of warfare itself***, underpin all of the trends outlined above and are having a profound impact on US military missions, strategy, organizations, planning, operations, and force development. It is difficult to predict precisely how these trends will play out over the next two decades. That uncertainty creates an extremely challenging planning environment for US policy makers and force planners.

***Assumptions and analytic framework.*** This specific assessment of the future security environment is colored by some key thoughts:

- That the United States remains both willing and able to continue its active engagement in world affairs. If that view proves wrong, then this overview would change significantly (almost certainly for the worse).
- That the future does not unfold in a ‘linear’ fashion according to current trends and conditions. The actual path to the future will be fundamentally ‘non-linear’ and this ‘best estimate’ will likely be at least partially wrong. We deal with the non-linear dynamic by undertaking numerous alternative futures assessments – ‘branches and sequels’ analysis. However, in order to present this assessment to you, a linear framework is used to better organize and discuss various topics. In thinking about the future, I urge you to take this concept into account.
- My testimony maintains a strategic-level focus on the long term, and therefore does not specifically address current ‘hotspots’ – unless those current conditions represent a continuing trend or appear to have some significant (lasting) impact on the emerging global security environment.

## **The Global Threat Environment**

***“It is simple enough to tell fortunes if a man dedicates himself to the idea that the future will inevitably be worse than the past and that time is a path leading nowhere but a place of deep and persistent threat.” Charles Frazier***

### **No Peer ...**

***The United States will likely remain the dominant global power – politically, economically, and militarily – during the next two decades.*** The US economy continues to account for about a fifth of global output, we spend some five times more on defense than any other nation, we retain strong alliances with key nations, we lead or are at parity with world leaders in the great majority of important technologies (both civilian and military), and we spend each year nearly half of what the advanced industrial world spends on all types of research and development. Moreover, our ‘soft power’ – the global appeal of American ideas, institutions, leadership and culture – is unrivaled. Assuming we retain the capability and will to remain engaged worldwide, no other state –

or any likely coalition or group of states – has the wherewithal to usurp the US position within the next 15-20 years. The most significant potential competitors – including Russia and China – all have fewer advantages and more problems. This is especially true in the military arena.

### **... But Many Challenges**

Despite our relative dominance, the world remains a dangerous place. Many challenging conditions exist today and others will emerge over time. Most derive from the volatile mix of factors that have prevented global stability since the end of the Cold War. *While these ‘threats and challenges’ are less significant individually than the global military problem posed by the former Soviet Union, collectively they present a formidable barrier to the emergence of a stable, secure, and prosperous international order.* Moreover, the general decline in US and Allied defense resources since the Cold War, combined with our more robust global engagement posture, make it increasingly difficult to deal effectively with these diverse global conditions.

*People in need ... and other local-regional ‘crises.’* A number of factors – population growth and uneven economic and demographic development, inadequate infrastructure and health facilities, rapid urbanization, the increasing frequency and intensity of ethnic, religious and cultural strife, resource shortages, natural disasters, and inadequate local, regional, and global response capabilities – have combined to increase the numbers of people requiring international humanitarian assistance each year. According to UN assessments, some 35-40 million people worldwide have needed aid each year during the 1990s, compared to slightly more than 20 million in 1985. Likewise, the number, size, cost, and duration of UN and other ‘peace operations’ have risen significantly since the late 1980s.

The global dynamic will continue to spur numerous regional and local crises. Prolonged tensions in the Middle East, the Balkans, and the Aegean, tribal and internecine disputes throughout many parts of Africa, continued hostility between India and Pakistan, ongoing border disputes between several nations, and ethnic and political conflict in resource-rich Central Asia – all have the potential to erupt abruptly into active conflict.

These trends, combined with declining military budgets worldwide, have had (and will continue to have) important consequences.

- First, *there has been a dramatic increase in the operations tempo of US and allied forces.* Only a few advanced militaries possess the strategic mobility to project power to remote, undeveloped regions, and even fewer militaries have the communications, transportation, logistics, and intelligence support to stay in distant deployed sites for extended periods of time (particularly under threatening and sometimes lethal conditions). These frequent deployments sap resources and limit training time.

- Likewise, *our increased daily global engagement posture limits the forces and resources available to respond immediately to other, more demanding, regional warfare contingencies.* Anticipating a threat environment in which more than one situation (perhaps several) will require a direct military response simultaneously, is critical to contingency and operational planning. Numerous, simultaneous, smaller-scale crises could have a large-war impact.
- Finally, *these ‘lesser crises’ can divert attention away from other, more significant, systemic global problems.* Given the general global condition, I expect the demand for humanitarian and other ‘peace operations’ to remain high. The effect of this is that US and allied forces may, of necessity, have to react to a continuing sequence of ‘emergencies’ rather than devoting their capabilities toward the shaping of a more stable global order.

***Rogues, Renegades, and Outlaws.*** A number of individuals, subnational groups, and states – Usama Bin Ladin and others with similar views, various international criminal and terrorist persons and organizations, and the governments and leaders of Iraq, Iran, North Korea, Libya, and others – do not share our view of the future. They typically resent the dominant global role played by the US, and feel threatened by the rapid expansion of ‘western’ (and particularly American) values, ideals, culture, and institutions. These entities generally recognize US military superiority and seek to advance their ends while avoiding direct engagement with the US military ‘on our terms.’ They will undertake any number of asymmetric and asynchronous efforts to avoid, slow, halt, prevent, or undo US initiatives and will continue to sponsor many kinds of anti-US activities. They frequently engage in behavior outside accepted international norms – despotism, violent extremism, terror, and unacceptable use of military force – as they struggle to improve their position while undermining the established or emerging order. While these entities are not at present linked by a widely shared unifying ideology, one could conceivably arise under the rhetoric of providing a counterpoint to US power.

***Terrorism, Drug Trafficking, and Other Transnational Crime.*** International criminal activity of all kinds will continue to plague US interests. I am very concerned about the growing sophistication of criminal groups and individuals and their increasing potential to exploit advances in global communications, transportation, finance, and other self-serving circumstances. The potential for such groups to usurp power, to generate negative economic conditions, and to undermine social support systems is on the rise.

- ***The terrorist threat to the US will likely grow*** as disgruntled groups and individuals focus on America as the most prominent symbol of ‘what’s wrong in the world.’ The characteristics of the most effective terrorist organizations – highly compartmented operations planning, good cover and security, extreme suspicion of outsiders, and ruthlessness – make them very hard intelligence targets. Middle East-based terrorist groups will remain the most important threat. While state-sponsorship of terrorism may decline, Iran and some other nations, and private individuals, will continue to support wide-ranging terrorist and subversive activities. The potential for terrorists to use WMD

will increase over time, with chemical, biological, and radiological agents the most likely choice.

- ***International drug cultivation, production, transport, and use will remain a major problem.*** The connection between drug cartels, corruption, and outright insurgency will increase as drug money provides an important funding source for all types of criminal and anti-government activity. Emerging democracies and economically strapped states will be particularly susceptible. The drug trade will continue to produce tensions between and among drug producing, transport, and user nations.
- I am also increasingly concerned about ***other forms of international criminal activity***, for instance ‘cyber-criminals’ who attempt to exploit the electronic underpinnings of the global financial, commercial, and capital market systems, and nationally-based ‘mafia’ groups who seek to undermine legitimate governments in states like Russia and Nigeria. Globally, criminal cartels are becoming more sophisticated at exploiting technology, developing or taking control of legitimate commercial activities, and seeking to directly influence – through infiltration, manipulation, and bribery – local, state, and national governments, legitimate transnational organizations, and businesses. Increased cooperation between independent criminal elements, including terrorist organizations, is likely. Greater interaction between the US military and other federal agencies will be required to counter this growing threat.

***Technology development and proliferation.*** I am very concerned about weapons of mass destruction and missile proliferation and will address these issues separately. However, there are other critical ‘enabling’ technologies – including numerous ‘new sciences’ – that can dramatically affect the nature and capabilities of future threats. Some examples include:

- ***Nanotechnology*** ... packaging advanced capabilities and functions in very small and lightweight form using micro and sub-micro manufacturing and machining technology (in particular, building weapons systems that are smaller, faster, lighter, yet more destructive).
- ***Biotechnologies*** ... particularly the bioengineering of organisms created for very specific purposes (e.g. biological agents that will infect and incapacitate a specific group of people).
- ***Information-related technologies*** ... including advanced encryption, high volume data handling, complex computational capability, and offensive and defensive information warfare capabilities.

***Critical Uncertainties.*** There are numerous issues – to include the great transitions underway in Russia and China, the future of the Korean peninsula, the prospects for lasting peace in the Middle East, the Balkans, and sub-Sahara Africa, evolving global and regional security structures and institutions, and an array of upcoming leadership changes – whose outcome will dramatically impact the global security situation. Uncertainty about these and other key issues brings great stress to the international order. I can

foresee no condition, power, or circumstance that is likely to emerge during the next 10-20 years that will transcend these factors and lead to a more stable and predictable global order.

## Enduring Strategic Nuclear Threats

*“Nothing changes so quickly as yesterday’s vision of the future.”Richard Corliss*

Since the end of the Cold War, Russia has relied increasingly on strategic nuclear forces to offset its declining conventional force capabilities. Despite years of economic crisis and decline, and extreme reductions in the Russian defense budget, Moscow has mustered the political will and resources to field and maintain its strategic force. Indicative of this determination, Russia continues to prioritize strategic force elements – in terms of manpower, training, and other resources – and to invest in the future by funding at least one new strategic missile, and numerous strategic command, control, and communications facilities and capabilities. While these forces and programs have not been immune from the wholesale reduction in Russian military capability, and Russia’s arsenal of strategic warheads will continue to shrink, ***I can foresee virtually no circumstance, short of state failure, in which Russia will not maintain a strong strategic nuclear capability.*** Moreover, Moscow’s increased dependence on strategic forces as the ‘backbone’ of Russian military power is changing the way it thinks about deterrence and war.

China’s strategic nuclear force is small and dated, and because of this, Beijing’s top military priority is to strengthen and modernize its strategic nuclear deterrent. Numerous new missile systems are under development, along with upgrade programs for existing missiles, and for associated command, control, communications and other related strategic force capabilities. While the pace and extent of China’s strategic modernization clearly indicates deterrent rather than ‘first strike’ intentions, ***the number of Chinese strategic missiles capable of hitting the United States will increase significantly during the next two decades.***

Russia and China are the only potential threat states capable today of targeting the United States with ballistic missiles. ***However, I am increasingly concerned that less dependable hostile nations – particularly North Korea and Iran – will develop that capability over the next several years.*** The growing availability of missile technology, components, and expertise, intense political pressure to acquire longer-range ballistic missiles, the willingness of some states to take shortcuts and accept more risk in their missile development programs, and our sometimes limited ability to reliably track these protected programs, are all cause for concern. Moreover, I must assume that any state capable of developing or acquiring missiles with intercontinental range will likely be able to arm those missiles with weapons of mass destruction.

***Whether this broader threat emerges sooner or later, during the next two decades, the strategic nuclear environment will become more diverse and complex.*** This has

significant implications for US strategic force planning, doctrine, deterrence, and targeting. Cold war concepts – such as counter force and counter value targeting, first and second strike capabilities, and mutual assured destruction – may no longer apply.

## **Regional WMD Threats on the Rise**

*“War is the great auditor of institutions.” Corelli Barnett*

*The regional proliferation of weapons of mass destruction and theater missile delivery means (ranges 3,000 kilometers or less) has become the greatest direct threat to US forces deployed and engaged worldwide.* Many states see WMD as their best chance to preclude US force options and offset our conventional military superiority. Others are motivated more by regional threat perceptions. In either case, the pressure to acquire WMD and missiles is high and the prospects for limiting them are slim.

Despite our best efforts at controlling nuclear proliferation, and despite the relative expense and difficulty associated with nuclear weapons development, *several rogue states are likely to obtain nuclear weapons over the next 10-20 years. Existing nuclear states will increase their inventories.* As these trends unfold, the prospects for limited nuclear weapons use in a regional conflict go up. So too does the potential for a terrorist or some other subnational group to detonate a weapon. There is also an increasing threat from terrorist use of radiological weapons – ‘dirty’ nuclear devices that contaminate the target with radiation rather than physically destroying it with blast and heat. Use of such weapons – in conjunction with more conventional explosives – will complicate and delay rescue, cleanup, and post-attack investigative operations, cause panic, and increase the overall psychological effectiveness of a given attack.

*The threat posed by ‘peaceful nuclear technology’* – due to unsafe or faulty technical designs, aging facilities, inadequate safeguards and security, improper handling, etc. – will increase as older, Soviet-built reactors deteriorate, and nuclear technology use increases over the coming decades. This condition has general security and safety overtones that may directly involve US forces and capabilities.

*Chemical and biological weapons* are generally easier to develop, hide, and deploy than nuclear weapons and will be readily available to those with the will and resources to attain them. I expect these weapons to be widely proliferated and believe there is *a high probability that they will be used in a regional conflict over the next two decades.* I am also concerned that sub-national groups or individuals will use chemical or biological agents in a terrorist or insurgent operation. Such an event could occur in the United States as well as against our forces and facilities overseas. The planning for such ‘smaller-scale’ incidents would be extremely difficult to detect, and consequently, to deter or warn against.

Theater-range *ballistic and cruise missile proliferation* is another growing challenge. I expect the numbers of ballistic missiles with ranges between 300-3,000 kilometers to

increase four-to-five fold during the next 20 years and to become more accurate and destructive. Likewise, the potential for widespread proliferation of land attack cruise missiles is high. While the types of missiles most likely to be proliferated will be a generation or two behind the global state of the art, states that acquire them will have new or enhanced capabilities for delivering WMD or conventional payloads inter-regionally against fixed targets. Major air and sea ports, logistics bases and facilities, troop concentrations, and fixed communications nodes will be increasingly at risk.

***The increased potential for regional WMD use has profound implications.*** Beyond their sheer destructive potential, the very possession of these weapons can quickly and dramatically change perceptions of regional power balances, force states to behave differently (and perhaps unpredictably), change the decision process (for both local and outside powers) concerning their involvement in regional conflicts, and complicate US contingency planning and execution.

The continuing and growing threat from weapons of mass destruction and the means to deliver them, including not only missiles and aircraft, but maritime and ground delivery, is evolving toward the greatest threat to our homeland and to our vital national interests.

## **Large Regional Militaries**

***The United States and its closest allies are moving rapidly toward ‘technology-information age’ military capabilities*** – digitized and automated tactical forces, fifth-generation fighters, advanced battle management systems, fully networked sensor-to-shooter architecture, advanced intelligence, surveillance, reconnaissance, and target acquisition, precision logistics, and so forth. In most of the rest of the world, the largest militaries will continue to field primarily ‘industrial age’ forces. By this I mean that the bulk of their capability will be based on large infantry and armored formations, massed artillery firepower, third- and fourth-generation fighter aircraft (F-15, F-16 equivalents), and centralized, hierarchical command-and-control structures. These forces are not designed for power projection, but rather are configured to present a substantial localized capability against neighbors and internal conditions.

Over the next ten to twenty years, these nations will strive to augment their mass-and-maneuver force structure with selected high-end capabilities, including: WMD and missiles, satellite reconnaissance, precision strike systems, global positioning, advanced air defense systems, and advanced anti-surface ship capabilities. ***It is likely that in any large regional conflict beyond 2010, US forces will face ‘hybrid’ military opponents that combine the mass and firepower of a late-20th century force with some more-advanced systems and concepts.***

On paper, such forces would be hard pressed to match our dominant maneuver, power projection, and precision engagement capabilities. Most would prefer not to

engage in traditional conventional warfare with the US. But in an actual combat situation, ***the precise threat these forces pose will depend on the degree to which they have absorbed and can apply key 21<sup>st</sup> century technologies, have overcome deficiencies in training, leadership, doctrine, and logistics, and on the specific operational-tactical situation.*** One of the key issues we must work to overcome and to guard against is technology surprise, where an opponent is able to develop, acquire and use a technology that may give them a circumstantial (lethal) advantage, which we did not anticipate. Under the right conditions, their quantitative capability, combined with situational advantages – e.g. initiative, limited objectives, short lines of communication, familiar terrain, time to deploy and prepare combat positions, and the skillful use of asymmetric and asynchronous approaches – will present significant challenges to US mission success. China, Russia, India, Pakistan, Iran, an unimpeded Iraq, and North Korea – are examples of militaries that could field large forces with a mix of current and advanced capabilities. These forces could directly challenge US and allied forces in a limited or regional conflict, particularly in the post-2010 timeframe.

***China.*** The largest of the hybrid forces will be China's. Beijing is modernizing its best units (perhaps ten percent of the force overall) at a steady pace, consistent with the country's overall emphasis on general economic development. ***By 2010 or so, these select forces will have achieved a reasonably high level of proficiency at 1980s-style maneuver warfare,*** though they will probably not fully master large, complex joint service operations until closer to 2020. Nevertheless, this portion of the Chinese force structure will be relatively well equipped with thousands of theater-range missiles, hundreds of fourth-generation aircraft, thousands of 'late Cold War equivalent' tanks and artillery, a handful of advanced diesel and third generation nuclear submarines, and some 20 or so new surface combatants. They are also likely to field an integrated air defense system and modern command-and-control systems at the strategic and operational level.

***Russia.*** Russia's forces are likely to become another hybrid. Russia has a rich military tradition and has many 'pacing technology programs' in research and development. But chronic underfunding and a host of related problems have devastated Russia's general purpose forces. ***There is little chance that Moscow's conventional forces will improve significantly during the next decade, unless radical change occurs*** – the enormous political, economic, and social problems confronting Russia virtually preclude that outcome. However, if Moscow can begin recovery from its economic and political crisis in the next few years, and the military receives stable, consistent leadership and resources, Russia will be able to begin rebuilding an effective military toward the end of the next decade, and field a much-improved force around 2015-2020. Under 'optimum' (for Russia) conditions, this force would be large and potent by regional standards, equipped with thousands of late-generation Cold War systems, and hundreds of more-advanced systems built after 2010. This view of Russia as a strengthened regional power is one scenario out of several, and may not be the most likely outcome, depending largely on the policy decisions of the Russian government and the development of the Russian economy.

***North Korea remains the country most likely to involve the United States in a large-scale regional war scenario over the near term*** (the next five years or so). Should war occur, Pyongyang's very large, heavy, forward-deployed forces – especially their artillery, rocket and short-range missile forces – their extensive underground facilities, WMD, longer-range missiles, and special operations force capabilities, combined with the time, distance, terrain, and other strategic features of the dynamic of war on the Korean peninsula, would pose a significant challenge for allied forces. War in Korea would be incredibly violent and destructive. Over the longer term, the North's dire economic and internal security situation will continue to undermine military readiness and forestall widespread military modernization, even as select elements of the force – particularly WMD, long-range missiles, and special operations forces – continue to receive priority. North Korea presents a challenging dilemma: a 'failing' state with rising internal pressures, diminishing conventional military capability, but posing an increasing regional and global threat by virtue of its expanding WMD and long-range missile capabilities.

***Iraq.*** Baghdad seeks to rebuild the forces it lost in the Gulf War, but will be unable to do so effectively so long as United Nations sanctions remain in place and effective. Moreover, Iraq's military options will remain limited in the face of US and allied presence and commitment. Over the longer term, assuming Iraq's leadership continues to place a high premium on military power, is able to 'get around the sanctions regime' sooner rather than later, and that the price of oil rebounds, Baghdad could, by 2020, acquire a large inventory of WMD, hundreds of theater ballistic and cruise missiles, triple its inventory of 4<sup>th</sup> generation aircraft, and double its fleet of armored vehicles. ***While this force would be large and potent by regional standards, its prospects for success against a western opponent would depend ultimately on how successful Baghdad was in overcoming chronic weaknesses in military leadership, reconnaissance and intelligence, morale, readiness, logistics, and training.*** I forecast a continuing set of very challenging and contentious circumstances involving the complex political, cultural, and geographic conditions in which Iraq exists. Absent a fundamental change in governance, uncertain circumstances and a revitalization of military capability will be Iraq's direction.

***Iran.*** Tehran's steady military buildup is designed to increase its influence in the Middle East and Central Asia, deter Iraq or any other regional aggressor, and limit US regional influence. ***Iran recognizes that it cannot hope to match US military power directly and therefore seeks asymmetric and asynchronous means to challenge the US indirectly:*** through subversion and terrorism, the development of air, air defense, missile, mine warfare, and naval capabilities to interdict maritime access in and around the Strait of Hormuz, and the acquisition of WMD and longer range missiles to deter the US and to intimidate Iran's neighbors. Over the next two decades, I expect Iran to acquire a full range of WMD capabilities, field substantial numbers of ballistic and cruise missiles – including some with intercontinental range – double its inventory of 4<sup>th</sup> generation

aircraft, triple the number of tanks and armored vehicles, and significantly improve its anti-surface ship capability. As with Iraq, Iran's effectiveness in generating and employing this increased military potential against an advanced adversary will depend in large part on 'intangibles' – command and control, training, maintenance, reconnaissance and intelligence, leadership, and situational conditions and circumstances. The economy of Iran is perhaps the single pivotal factor in its ability to form the future as Iran would like it.

*With the exception of the situation in Korea, during the next decade or so, the threat of large-scale regional conventional war involving the US will likely remain limited.* Most potential adversaries recognize our general military superiority, and for a variety of reasons, will not significantly improve their capability to present a direct conventional challenge during that time. *Beyond 2010, however, and certainly by 2020, there is an increased possibility that the major regional military powers will measurably improve their forces and, under the right circumstances, can directly threaten our mission success in a given regional situation or conflict.* The dilemma for US force planners is maintaining our capability over the near term to deter regional aggression, while improving our future capability to deal with the expanded regional threat posed by large 'hybrid' forces. Many factors, including the development of advanced lethal technologies, and the potential for alliances and coalitions to form, may radically alter these conditions.

## The Changing Nature of Warfare

*“... The conduct of war branches out in almost all directions and has no definite limits ...” Clausewitz*

*The dynamic and diverse global condition, the near-universal recognition of US conventional military superiority, and the age-old interplay between war and peace, threat and response, offense and defense, and military art, science, and technology are fundamentally changing the nature of the threats we face, and the nature of warfare itself.* It is nearly impossible to predict precisely how these factors will play out – in terms of the motives, vulnerabilities, capabilities, timing, locale, and technological sophistication of specific threats. Nevertheless, by recognizing vital US interests, understanding why people, leaders, and states engage in warfare, and acknowledging the interaction between a potential enemy's capability, intent, and will, it is possible to discern the outlines of a new threat paradigm and to assess emerging warfare trends and methods.

## The Emerging Threat Paradigm

### ... More Diverse and Multipolar

The bipolar (Cold War) threat has been replaced by a more diverse and multipolar set of generalized entities\* and conflict conditions. These include:

- **Partners** ... who generally share our values and can frequently be considered military allies.
- **Competitors** ... who may or may not share our values, compete with us in a variety of fora, but are not military adversaries.
- **Adversaries** ... who generally have values and interests contrary to ours, but lack the wherewithal to actively oppose us.
- **Renegades** ... who engage in unacceptable behavior frequently involving military force and violence, are current or potential enemies of the US, and against whom we must anticipate the active use of military force.
- **Emergency circumstances** ... generally involving humanitarian relief operations, various 'peace operations,' other operations short of war, and environmental or natural disasters that require the application of military resources.

***This new threat paradigm has significant implications for US military planning and force development.*** During the Cold War, the predominance of the Soviet threat, and the bipolar nature of superpower competition, allowed for substantial continuity in US defense planning and force development. 'Containment' provided the basic context for all US security policy decisionmaking. Meanwhile, Soviet doctrine, warfighting concepts, and equipment – combined with Warsaw Pact-NATO force ratios and mobilization potential, and the unique terrain and geographic features of Central Europe – provided the basis for our doctrine, strategy, tactics, and materiel development, our force sizing criteria, our equipment, operational, and organizational requirements, and our functional characteristics. Within this broad 'Soviet threat' paradigm, other force requirements were generally considered lesser-included cases, on the assumption that if the US could handle the Soviets in Central Europe, we also could handle everything else.

***Under the new paradigm, threats are more diverse and complex, and much harder to plan for.*** For instance, North Korea and Iraq, currently our most likely opponents in a major theater conflict, pose significantly different challenges in terms of their tactics,

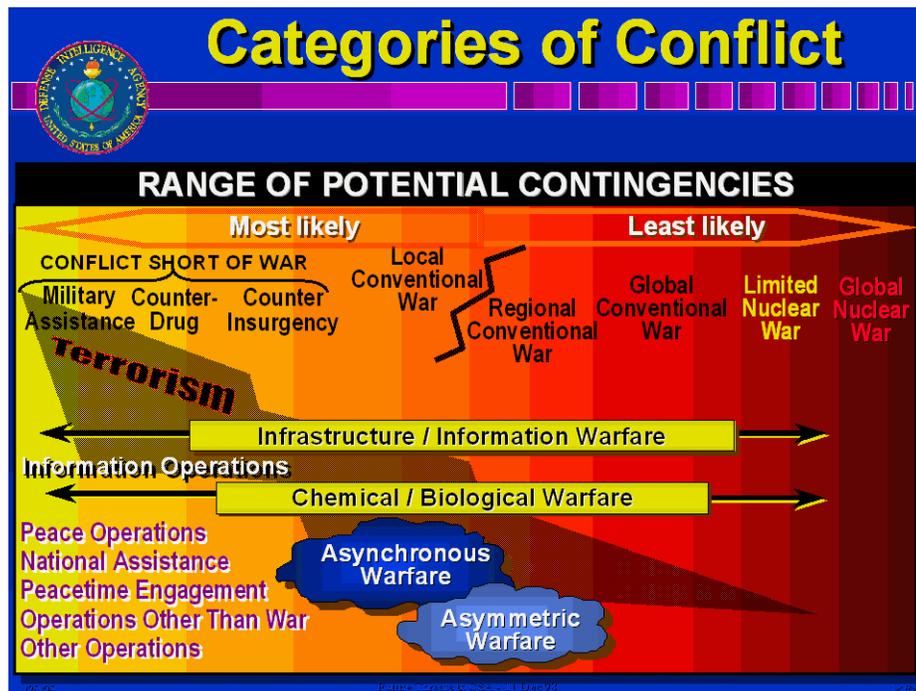
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\* It is important to realize that many of these entities do not conform to traditional state or alliance definitions. Rather, they transcend political boundaries and territorial limitations. Circumstantially, a state or non-state entity can fall into different categories depending on the specific issue and situation at hand.

equipment, and capabilities, and the theater terrain and locale. Neither state presents a pacing technology threat, although North Korea is likely to possess nuclear capability. Meanwhile, Russia, China, and other European and Asian powers represent our most important military technological ‘competitors,’ but we are not likely to face any of these states in a direct military conflict during the next ten-to-twenty years. Similarly, our most pressing current challenges – operations other than war, terrorism, narcotics trafficking, and other criminal activity with national security implications – and the biggest emerging threats – weapons of mass destruction (WMD) and missile proliferation – have limited utility as the basis for sizing and defining future force requirements.

### ... A Wide Spectrum of Potential Contingencies

*US forces may be required to engage in operations across the conflict spectrum* – from conflict short of war at the low end, through conventional war (both local and regional), to global nuclear war at the high end. However, operations at the lower end of the spectrum – military assistance, peace keeping, humanitarian assistance, and limited local or regional conflict – are most likely to occur. With some exceptions, notably Korea, large-scale conventional war and nuclear war are far less likely to occur, so long as the US retains significant deterrent capabilities. This condition poses a dilemma for force planning – how to structure and size forces across the spectrum of potential conflict and still optimize some forces for the most likely contingencies. While this challenge is probably most acute for the US, given our global interests, it also must be faced by many other nations who aspire to major power status.



### **... Simultaneous Operations the Norm**

The idea that single events happen in isolation and can be dealt with in a singular manner is more unlikely than ever. The global impact of technology, the integration of global systems, the blending of some cultures, and the effect of long range weapons and transnational threats of all kinds, have contributed to the ‘networked’ world we now see evolving. *The future condition of our social order is likely to be challenged and threatened not by a single event or opponent but rather by the net effect of several – even many – conditions and circumstances*, which when combined have much larger and more significant consequences than may have been realized. Indeed, one can imagine a ‘millennial net effect’ in which the Y2K problem, localized conflict, incidental events, unintended consequences (in the networked world), the millennial expectation, fear of the unknown, and the effects of weather and other natural phenomenon (earthquakes), combine with religion and culture to create an expectation of radical change.

### **... Many Different Paths**

There are many views on the nature of future war. At one end of the spectrum are those who foresee a global revolution in military affairs brought on by the application of advanced technologies and innovative doctrine – particularly advances in the areas of information management, remote sensing, precision strike, and fully automated sensor-to-shooter links – to the organization and execution of military operations. At the other end are those who believe that dominant social trends – notably ethnic conflict, population and resource imbalances, and urbanization – combined with a general recognition of western military superiority, will drive warfare toward the ‘lower end’ of warlords and paramilitary-like forces engaged in brutal, but limited (and often urbanized) local conflicts. *Unfortunately, advocates of these and other views often speak as if one of these futures automatically precludes the other and that – contrary to Clausewitz’s reminder – warfare will evolve along a single path. Nothing could be further from the truth.*

There are a number of trends – some contradictory – underway at present that will determine how war and conflict will be waged in the future. Understanding and anticipating how these trends will unfold is one of our key challenges.

### **... The Impact of Technology – Technowar**

The rapid pace of military technology advancement – particularly in the areas of precision weapons, information management and automated communications – will continue. *Major technological breakthroughs in military capability will happen in the next two decades. Some aspects of our technological dominance – especially those with commercial and industrial applications – will be difficult to maintain* because the

transfer of these capabilities will initially appear as primarily civilian or dual-use events. One of our greatest challenges is that a rogue nation or sub-national group might acquire key technologies, which would lead to some form of strategic technical surprise.

Overall, the impact of applied automation and computers, electromagnetic warfare, brilliant sensors, and the other technologies listed below will lead to the rise of a military-techno culture in which time, area (space), distance, speed, and other fundamental conditions are radically changed. ***The following developments have the potential to dramatically alter the nature of warfare and the characteristics of future threats.***

- Nuclear, chemical, biological, radiological weaponization and proliferation
- Long range missiles and related technologies
- Brilliant sensors
- Space-based communications, sensing, and weapons applications
- Precision munitions
- Electrodynamics weapons
- ‘Conventional’ weapons of mass destruction
- Non-lethal weapons
- Information technology and cybernetic warfare
- Camouflage, cover, concealment, control, denial, and deception (C4D2)
- Techno-terrorism
- Nanotechnology
- Applied biotechnologies
- Other ‘New Sciences’

### **... Declining Defense Resources**

***To date the development and integrated application of the most important military technologies and concepts has been limited to the advanced western militaries -- particularly the United States. One key reason is economic. In general, these technologies are very expensive to develop and maintain, and most nations have emphasized other priorities since the end of the Cold War. In fact, non-US global defense spending has dropped some 40 percent since the late 1980s, and the ‘military modernization accounts’ – research and development, and procurement – have been hit even harder. Moreover, during the same period, the global arms market has decreased by more than 50 percent. With reduced domestic procurement, declining foreign consumption, and other spending imperatives, many nations have had neither the motivation, the resources, nor the capability to pursue high technology military endeavors. If these trends continue, we can expect more significant reductions and consolidation in the global defense industrial base, which will have important implications for the level of technological threat we will encounter, and for our own military-technological competitiveness.***

These twin developments – increasing military technological potential, combined with constrained defense spending worldwide – ***make it very difficult to forecast just which technologies, in what quantity and form, will make it into the military systems of***

*future adversaries.* In many cases, the question will no longer be which technologies provide the greatest military potential, but which will receive the political and resource backing to reach the procurement and fielding stage. In a related trend, civilian technology development is now driving military technology development in many countries. This puts a higher premium on understanding how potential adversaries link their civilian and military research and development programs, and on identifying those nations that are innovative in applying (vice developing) advanced technologies to military ends.

### ... New (Modified) Forms of Warfare

*Technology, combined with the creative ideas of military thinkers around the world, is leading to the development and application of new forms of warfare, and the innovative modification of traditional military practices.* While the US and its allies are the source of much of this innovation, others are driven by the dominant military position of the US, and our demonstrated commitment to maintaining our military lead. This basic reality is forcing many of our adversaries (current and potential) to seek other means to attack our interests. *In general, we can anticipate an environment in which adversaries seek to avoid traditional conventional warfare with the US, to pursue various strategies to preclude or diminish our military options, and to threaten or use WMD.* Some of the more important 'new forms of warfare' include:

- *Information Warfare (IW)* ... actions taken to degrade or manipulate an adversary's information systems while actively defending one's own. Over the next two decades, the threat to US information systems will increase as a number of foreign states and sub-national entities emphasize offensive and defensive information warfare strategies, doctrine, and capabilities.
- *Cybernetic warfare (CYW)* ... a distinct form of information warfare involving operations to disrupt, deny, corrupt, or destroy information resident in computers and computer networks. One particularly troubling form of 'war in cyberspace' is the covert modification of an adversary's data and information systems. This form of warfare will grow in importance as technology makes new methods of attack possible. Cybernetic warfare defies traditional rules of time and distance, speed and tempo, and the conventional or traditional military capabilities of the opposing elements.
- *Transnational Infrastructure Warfare (TIW)* ... attacking a nation's or sub-national entity's key industries and utilities – to include telecommunications, banking and finance, transportation, water, government operations, emergency services, energy and power, and manufacturing. These industries normally have key linkages and interdependencies, which could significantly increase the impact of an attack on a single component. *Threats to critical infrastructure include those from nation-states, state-sponsored subnational groups, international and domestic terrorists, criminal elements, computer hackers, and insiders acting as agents for others.*

- ***Asymmetric warfare*** ... attacking an adversary's weaknesses with unexpected or innovative means while avoiding his strengths. The concept of utilizing asymmetric approaches is as old as warfare itself. In the modern era, many forms of asymmetric attack are possible – to include the newer forms of warfare outlined above, terrorism, guerilla operations, and the use of WMD. Because of our dominant military position, ***we are very likely to be the focus of numerous asymmetric strategies as weaker adversaries attempt to advance their interests while avoiding a direct engagement with the US military on our terms.*** If forced into a direct conflict with the US, those same adversaries are likely to seek ways of 'leveling the playing field.'
- ***Asynchronous warfare*** ... the concept of a significant time lag between attack and response. This may involve a preselected or delayed (timed) attack on an adversary, taking advantage of the passage of time to develop a strategic opportunity or to exploit a future vulnerability. In a preselected attack, the operation has a latent effect on the adversary. Human or technical assets are strategically placed well before – sometimes years before – the actual confrontation. A delayed attack – often carried out as an act of reprisal months or even years later – may be designed to hit the enemy after his guard has been lowered. ***For US decision-makers, an extended time delay between an enemy's attack and our response can undercut international support for our actions. Some enemies, recognizing our penchant for 'proving' culpability before striking back, may seek to exploit this condition. Using time to weaken our resolve and to sap our resources must also be anticipated, especially in conflict situations in which a final or decisive resolution does not occur.***

### ... Security

Global telecommunications, broadly applied automation, the attendant effects of much information being resident in many different places – accessible by many people, and more aggressive and pervasive public media coverage of military operations, have combined to challenge our traditional concepts of operational security and secrecy. We live and work in a much more transparent environment in which the restriction of any information from the public domain is challenged by this new paradigm. This condition has both positive and negative effect. ***Much more information is now available to the public, but some information endangers military plans and intentions and puts military operations and personnel at risk.***

***The result has been the compromise of intelligence and operational data, obtained at great cost to the American taxpayer,*** in the public domain and coincidentally to our enemies and adversaries. In some cases we have lost the element of surprise, we have lost the initiative, and we have endangered or lost sources of information that are important windows into what our opponents are doing. I do not have a clear solution to recommend, but feel it is my duty as a military officer who is entrusted to secure such information to bring this to your attention as a matter of great concern.

## Conclusion

Dynamic change and great uncertainty have marked the past ten years. The next two decades are likely to be equally so because the basic engines of turmoil remain largely in place. The volatile mix of global political, economic, social, technological, and military conditions will continue to bring great stress to the international order. ***No condition, circumstance, or power is likely to emerge over the next 10-20 years that will somehow transcend these ‘sources of instability’ and lead to a more stable global order.***

***There is little chance the US will confront a Soviet-like global military challenger during this timeframe. Nevertheless, threats and threatening conditions exist today, and others will emerge over time.*** Collectively, the combined impact of numerous local, regional, and transnational challenges presents a formidable obstacle to our strategic vision.

***The global presence of the United States – our tremendous power, influence, and willingness to remain engaged – is the key factor affecting the future shape of the international security environment.*** During the next two decades a new security paradigm will evolve – one in which the United States faces a generalized global set of competitors and potential adversaries, the troubling proliferation of ‘negative’ technologies, and the existence and – at times rapid – emergence of numerous persistent small-conflict conditions and situations. The new global condition affects every aspect of our effort, including the planning and execution of current operations, and the development of the strategy, organization, and equipment that will shape and define our future forces.

***One of the most important challenges facing the Defense Intelligence Community is to discern from the general global condition a more specific characterization of emerging threats.*** This characterization must be detailed and timely enough for our political and military leaders to prevent, deter, or prepare for those threats before they become reality and to fight and win against our enemies if that becomes necessary. We in the Defense Intelligence Community remain committed to providing the best possible military intelligence support to US and allied leaders engaged in planning for and acting in any contingency or crisis.

***“Men will not believe what does not fit in with their plans or suit their pre-arrangements. The flaw in all military intelligence, whether twenty or fifty or one hundred percent accurate, is that it is no better than the judgement of its interpreters, and this judgement is the product of a mass of individual, social, and political biases, pre-judgements and wishful thinking; in short, it is human and therefore fallible.”***

***Barbara Tuchman***

